

Abstract

A chemical-amplification type silicone-based positive-working resist composition that can be prepared from compounds of good availability as the base materials through simple means and can provide a bilayer resist material from which a fine pattern of high resolution, high aspect ratio, desirable cross-sectional profile and low line edge roughness can be formed. In particular, a chemical-amplification type positive-working resist composition comprising an alkali soluble resin (A) and a photoacid generator (B) wherein a ladder-type silicone copolymer comprising (hydroxyphenylalkyl)silsesquioxane units (a_1), (alkoxyphenylalkyl)silsesquioxane units (a_2) and alkyl- or phenylsilsesquioxane units (a_3) is used as the alkali soluble resin (A). The copolymer wherein, in the component (A), the units (a_3) are phenylsilsesquioxane units is a novel compound.